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29 AUG 1989

Mr. David L. Moffitt
Superintendent
Colonial National Park Service
National Park Service
P. O. Box 210
Yorktown, Virginia 23690

Dear Mr. Moffitt:

Thank you for your comments concerning the Initial Assessment Study and Remedial Investigation Interim Report for the Naval Supply Center (Norfolk) Cheatham Annex and Yorktown Fuels Division. Below is our response to your comments. Comments are addressed in the order presented in your May 25, 1989 letter.

Item 1:

Comment - Initial Assessment Study of Naval Supply Center (Norfolk), Cheatham Annex and Yorktown Fuels Division.

Page 2.10, part 2.2.3 - Sites Not Recommended for Confirmation Study: We are somewhat concerned about the decision to drop site 7, described on page 2-14, from further study. The best information available to the investigators who prepared the IAS indicated that the wastes deposited at this site were non-hazardous and/or inert. Apparently there was scant information to indicate what was deposited at the site. Since this site served as a repository for wastes from a municipality and a chemical company, we think there is a fair chance that chemicals associated with household products and industrial processes could have been deposited at site 7. Given the uncertainty about the type of waste deposited at site 7, and that the site appears to be in an environmentally sensitive location in relation to the York River, it would seem prudent to conduct follow-up investigations.

Response - The Old Dupont disposal area, site 7, was in operation in the early 1900s. The widespread use of chemicals in society did not begin until during or after World War II, in the mid 1900s. Based on this fact, and the fact that no records were found of hazardous substances being deposited at this site by the IAS Investigation Team, the Navy can see no risk to human health or the environment that would warrant further investigation.

Item 2:

Comment - Initial Assessment Study of Naval Supply Center (Norfolk), Cheatham Annex and Yorktown Fuels Division.

Page A-1, Appendix A - Agencies contacted during the IAS: Was it perhaps an oversight that the Virginia Institute of Marine Science was not contacted? Could this be the reason that there is no species list for estuarine and marine invertebrates listed in the appendix? We note that this area is a very important nursery area for blue crabs and oysters.

Response - The Department of the Navy developed the Navy Assessment and Control of Installation Pollutants (NACIP) program to identify and control environmental contamination from past use and disposal of hazardous substances at Navy and Marine Corps installations. The object of the first phase of this program was called the Initial Assessment Survey (IAS). The object of the IAS was to identify past hazardous substances uses or disposal practices that could pose a threat to human health or the environment. In order to achieve this goal, the IAS team contacted agencies or individuals with knowledge of past practices used at Chestham Annex and Yorktown Fuels in handling hazardous substances. It is doubtful that the Virginia Institute of Marine Science would have been able to assist the IAS team in achieving this goal. During the conduct of the next phase of study, if contaminants and pathways present a potential risk to the environment, such as to the nursery area, appropriate aquatic investigations and risk assessments will be conducted. The appropriate Federal and State natural resource trustees will be given the opportunity to participate as reviewers in the Work Plan and study efforts.

Item 3:

Comment - Draft Remedial Investigation Interim Report Naval Supply Center (Norfolk), Yorktown Fuels Division, Yorktown.

Pages 5-3 and -4, part 5.2.3 - Biota Sampling Program: As the biota sampling program is presented, the course of study would first assess species diversity and distribution and then, depending on the findings of the biota sampling program, proceed to conduct "some type of toxicological testing". We recommend that toxicological studies be conducted at the time of the biota sampling program for the following reasons: (1) if the expected biota are present, they could be suffering from a non-discernable chronic effect of a toxic contaminant and; (2) if the biota are absent, we cannot prove that a toxic contaminant eliminated them.

Response - Section 5.0 of the Draft Remedial Investigation Interim Report Naval Supply Center (Norfolk), Yorktown Fuels Division, Yorktown, discusses Dames and Moore's recommendations for the next round of work at the Yorktown Fuels Division. Based on the next round of sampling, the Navy will conduct a preliminary risk assessment at Yorktown Fuels to determine the potential threat to human health and the environment (including local biota), posed by contamination at the sites being studied, the results of this risk assessment will be used to establish a work plan for further investigation. The Work Plan may include toxicity testing, bioaccumulation or tissue testing, in situ testing, population studies, or other biological testing. The details of this type of ecological investigation would be included in a biota sampling plan which would be submitted at a later date.

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The risk assessment will include the following components:

- a. Documentation of release of a specific contaminant from a given site, including determination of amount and concentration of contaminant and ARAR value.
- b. Determination of pathway - how and where the contaminant is entering the environment of concern.
- c. Determination of exposure point - At what point in the environment is the receptor of concern (i.e., endangered species, commercially important species, etc.) exposed to the contaminant and at what concentration is the contaminant at the exposure point.
- d. Determination of mechanism of intake - How is the receptor of concern consuming the contaminant (ex: contamination is entering the body of the organism through sediment because the organism is a bottom feeder).
- e. Determination of effect - What is the effect of the contamination on the organism of concern at the concentrations present. What are the target tissues or organs which the contaminant is effecting, and is the effect considered adverse.
- f. Identify additional data needs to complete characterization of the site, complete the risk assessment, and define ARARs.

Item 4:

Comment - Draft Remedial Investigation Interim Report Naval Supply Center (Norfolk), Yorktown Fuels Division, Yorktown.

Pages 5 - 6, 1st full paragraph, 4th sentence: What procedure and species will be used for the ambient toxicity testing water?

Response - If warranted by the risk assessment, discussed above, to be conducted as part of the upcoming Workplan and Sampling Plan, the procedures and species used in any part of the biota sampling plan will be discussed in greater detail in subsequent documents.

Item 5:

Comment - Draft Remedial Investigation Interim Report Naval Supply Center (Norfolk), Cheatham Annex.

Page 4-17, part 4.2.2 - Site 9, Transformer Storage Area: Although PCB soil contamination at this site was found to be below levels that require remedial action, we are concerned about the recommendation on Page 6-2 that this site be excluded from further study efforts. Monitoring wells should be installed at this site to determine the extent, if any, of ground-water contamination.

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Response - Polychlorinated Biphenyls (PCBs) have been shown to bind to soils firmly and to resist leaching into groundwater. Because of this natural affinity PCBs have displayed for soil, and the low levels present, which are below current EPA cleanup standards (i.e. 10 to 321 parts per billion (ppb) present in the soil versus 1000 ppb EPA cleanup level), the probability of PCBs at site 9 migrating to and adversely impacting groundwater at site 9 is minimal. Therefore groundwater monitoring will not be conducted.

Item 6:

Comment - Draft remedial Investigation Interim Report Naval Supply Center (Norfolk), Cheatham Annex.

Page 5-8, 1st paragraph, last sentence: We would like to see a description of the procedures that will be used for the toxicity testing.

Response - See response to Items 3 and 4.

Item 7:

Comment - Conclusions

We also recommend the U.S. Fish and Wildlife Service, Environmental Assessment Division, White Marsh, Va.; the Virginia Marine Resources Commission, Newport News, VA.; the Virginia Institute of Marine Science; and VPI & SU, Virginia Water Resources Research Center, Blacksburg, Va. be afforded the opportunity to comment and receive all final reports and investigations. We have included an article on the statewide role of VPI's Water Center.

Response - The Virginia Department of Waste Management has assumed the responsibility of coordinating the comments of all state regulatory agencies and submitting them to the Navy. If potential migration of contamination to nearby estuaries is determined to present sufficient risk to warrant additional remedial investigation, then environmental regulatory agencies such as Virginia Marine Resources Commission, Virginia Game and Inland Fisheries Service, and the U.S. Fish and Wildlife Service, etc., will be afforded the opportunity to participate in the review of IR Reports via the TRC program.

We hope this adequately addresses your comments, concerns, and recommendations. Where appropriate, your recommendations will be acted upon in the near future. If you have any further questions, please contact David W. Daly, Atlantic Division, Naval Facilities Engineering Command, at (804) 445-6782.

We appreciate your participation in the Installation Restoration Program at the Naval Supply Center (Norfolk) Cheatham Annex and Yorktown Fuels Division and look forward to working with you in future Technical Review Committee meetings.

Sincerely,

P. A. RAKOWSKI, P.E.
Head, Environmental Programs Branch
Environmental Quality Division
By direction of the Commander

Copy to:

TRC Members

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